

## The Earliest Illustrations and Descriptions of the Cardinal

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### ABSTRACT

In the 16<sup>th</sup> century Northern Cardinals were trapped in Mexico, then sent as caged birds because of their beauty and song to various places in Europe and south Africa. The Italian, Aldrovandi, obtained a caged bird in Italy and with a woodcut, published the first known illustration of a cardinal in 1599. The great English naturalist, Francis Willughby, in conjunction with John Ray, published a painting of a cardinal in 1678, and the eccentric and prolific collector, James Petiver, included an illustrated caged cardinal from south Africa in his monumental *Opera* (1767). Mark Catesby was the first artist to paint a cardinal (probably in Virginia) with a natural background (c. 1731). Aldrovandi's woodcut and description in 1599 represent the earliest known mention of the Northern Cardinal.

*Key words:* *Cardinalis cardinalis*, history, illustrations, Northern Cardinal.

To an ornithological historian it is exciting and rewarding to be able to trace the earliest report and illustration of any bird. Such has been the case for the bird now called the Northern Cardinal (*Cardinalis cardinalis*). In the 16<sup>th</sup> century the cardinal was a favorite cage bird among Europeans, long before it was reported by English colonists in its North American range. Today, its range extends from southern Canada through the eastern and central United States, southward through parts of Mexico and Belize (AOU, 1998). From the early writings of certain Europeans, it is widely believed that their caged cardinals were probably trapped in Mexico, then shipped to many places abroad (Allen, 1951).

Ulisse Aldrovandi

Ulisse Aldrovandi (1522-ca. 1605), the Professor of Natural History at the University of Bologna, spent summer months studying and collecting living things in nearby woods and fields. Although his main interest was in descriptive zoology, he had a particular affinity for birds. Among his publications was a four-volume work on birds (only three were published before his death), *Ornithologiae* in 1599, 1600, and 1603. In the 1599 work, he included woodcuts of some American birds including a cardinal (Fig. 1). He called the bird "*Coccothraustes Indica cum ceraso auium*," meaning "the kernel-shatterer of the Indies with cherry of the birds," and "The Crested

Grosbeak from the Indies." This woodcut was the first published image of the species (Simpson, 1985).

A translation of Aldrovandi's Latin description reads:

"A bird of this sort, pictured in the guise of life, was sent to me several days ago on the command of his serene highness, Ferdinand, Duke of Etruria, by the superintendent of his garden at Pisa, F. Franciscus Malocchius, who in sending it affirmed that in his native land—an island, to be



Fig. 1. Woodcut of a cardinal, from Ulisse Aldrovandi's *Ornithologiae* (1599).

sure, which he called Cape Verde—it is commonly named *fruson*, a name resembling *frison*, the species described in our next preceding chapter, to which even in beak it is like; a black patch, however, surrounds the beak, and, according to Girolamo Mercuriale, it is the size of a thrush. It has, therefore, seemed good to me to name it *Coccothraustes Indica*. It eagerly devours almonds, so Malocchius tells me (and in this respect also it corresponds to the *Coccothraustes*, which breaks fruit of this sort with its beak and is on that account called ‘the nutcracker’), and other seeds, and even small bones. In order to do this equally well, this bird, like ours, is provided with a strong, thick, and sturdy beak. Lusitanis Mercurialis asserts that it is commonly called *cardinalitus*, perhaps because it is red; it seems to wear a red hood.

Concerning its nature and its habits Malocchius told me these things: It imitates the voices of other birds, particularly that of the nightingale; it feeds eagerly, and devours almonds and chickweed (*alsinem herbam*); seeing its own image in a mirror, it becomes pitifully agitated, uttering whistles, lowering its crest, raising its tail like a peacock, fluttering its wings, and at length striking the mirror with its beak. Its body temperature is high, as would seem, for it often plunges itself into water. In disposition it is quite tame, and will take food from an extended hand. So much concerning its nature. As to its form – The triangular crest upon its head is crimson, and this color spreads down the neck and glows from breast and belly. The tips of the wings are not so intensely reddened, or perhaps not at all; the tail, which proportionately to the body is rather long, is straight, about one palm in length and of a finger’s breadth, as the picture shows it to be. The tibiae are short and whitish; the claws strong and not at all hooked. The total length of the bird from the head to the tip of the tail is two palms.” (Christy, 1942: 176-177)

Girolamo Mercuriale (1530-1606) was an Italian physician, author of *De Arte Gymnastica*, and contemporary of Aldrovandi. Nothing in his publication is pertinent to the cardinal, but Willughby (1678:245) noted that “*Mercurialis* affirms, that by the *Portugues* it is commonly called, *The Cardinal bird* because it . . . seems to wear on its Head a red hat.”

Christy (1942:179) explains the early use of the word “cardinal.” The bird, or at least its color, resembled the distinctive crimson color in which the Roman cardinals robed themselves. Furthermore, “It would seem, from the account given by Aldrovandus and quoted above, that the Spanish invaders of Mexico immediately and spontaneously called this abundant and conspicuous bird *cardinalitus* (=little cardinal), because it seems to wear a red hood.”

Johannes (John) Jonstonus (Johnstone)

One of the first books in the 17<sup>th</sup> century to contain illustrations of birds from many different countries was the compilation by John Johnstone (1603-1675). A Scottish physician who practiced in Leyden, Johnstone first published the compilation in several books in 1650 in Frankfurt, then an English translation in London in 1657 (Allen, 1951). The many bird engravings included one of a cardinal which was almost an exact replication of Aldrovandi’s woodcut.

Francis Willughby

Francis Willughby (1635-1672) first met John Ray (1627-1705) when they were students at Cambridge University. Ray’s principal interests were plants, but later he also became interested in the study and collection of birds. Together they traveled throughout the English countryside, then made an extensive collecting trip through much of western Europe in 1663-64. Willughby had inherited Middleton Hall, where his notes, manuscripts, illustrations, and collections were stored. It was here that their partnership continued as they worked over the collections. After Willughby died of pleurisy in 1672, Ray resolved to prepare Willughby’s ornithological material for publication. The English version was published in 1678 by the Royal Society (Allen, 1951) and is usually described with Ray (1678) as the author but occasionally with Willughby (1678) as the author.

On Tab XLIII of this *Ornithology* among several non-American birds is *Coccothraustes Indica cristata* The Virginian Nightingale (Fig. 2), and the text on page 245



Fig. 2. Illustration of a cardinal by Francis Willughby, apparently adapted from the woodcut shown in Fig. 1.

reads: "It is as big as a *Blackbird*, or something less. A black border compasses the Eyes and Bill; which is like to that of the common *Hawfinch*, or a little shorter. The Head is adorned with a towring crest, which it often moves as well toward the Bill, as toward the Tail. The colour of the whole is a lovely Scarlet, in the Head and Tail more dilute. It is brought into *England* out of *Virginia*; whence, and from its rare singing, it is called, The *Virginian Nightingale*."

Apparently this slightly modified illustration, lacking the cherry fruit and facing in the opposite direction, was copied directly from Aldrovandi's woodcut.

James Petiver

James (Jacobi) Petiver (ca. 1663-1718) operated an apothecary shop in London and amassed a huge collection of natural history items from many places over the globe (from Virginia and Maryland to the Cape of Good Hope and China) (Stearns, 1952). From 1695 to 1706 he published at least two series of copious catalogues of plants, insects, and other natural history objects (*Musei Petiveriani Centuria Prima Rariora Naturae Continens*, called "Centuries;" *Gazophylacii Naturae et Artis: Decades decem*, called "Decades"). Many of the ten "Centuries" and the five "Decades" contained engravings of animals, insects, plants, and fossils, often with short descriptions of them. In 1767 *Opera, historiam naturalem spectantia* was published with Petiver given as the author, but apparently it was printed for a bookseller, John Millen. This two-volume tome contains several hundred figures of plants, insects, birds, etc. from all the "Centuries" and "Decades" and "several curious tracts."

Among the illustrations (Fig. 3) in *Opera* is a bird with the following description (Petiver 1767:3): "*Coccothraustus Capensis ruber, rostro hianthe*, \_Picturis D. Krieg. The Cape-Cardinal. This in colour and shape resembles the Virginia red-bird or nightingale, in Mr. Ray of birds p. 245. Tab. 44. Fig. 2. But what is peculiar to this is its cleft bill."

This description merits close scrutiny. He called it "Capensis" and "The Cape-Cardinal" because the bird came from the Cape of Good Hope where it was probably a caged bird. Petiver had some collectors at the Cape, e.g., Dr. James Cunningham in 1696. Petiver's friend, Dr. David Krieg, had translated French, German, and Italian works of his own day, portions of which are scattered throughout Petiver's copious catalogues of natural history specimens (Stearns, 1952). It is likely that Krieg had seen the illustration of a cardinal in John Ray's *The Ornithology of Francis Willughby* (1678), hence "\_Picturis D. Krieg." The other part of Petiver's scientific name, "*rostrum hianthe*" means "gaping bill," a reference to

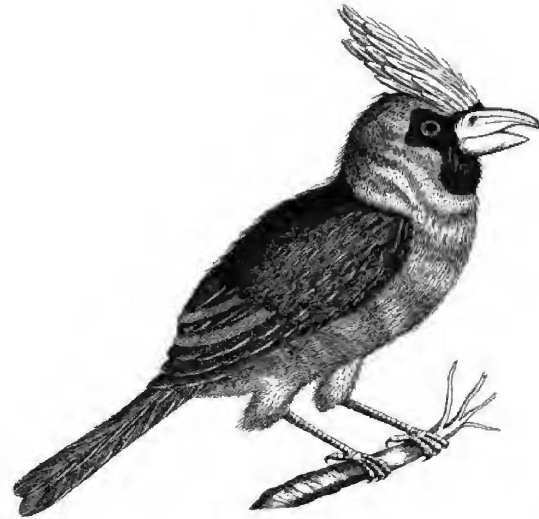


Fig. 3. Illustration of a cardinal from James Petiver's *Opera* (1767), presumably drawn by David Krieg.

the illustrated bird's "cleft bill." This character was either a figment of the illustrator's imagination, a deformity, or a bird chewing on a hard seed.

The same cardinal illustration appears in his *Gazophylacii Naturae & Artis, Decas Prima* (1702; see Petiver, 1767), where in the list of figures Petiver adds: "My Kind Freind Mr. Rance Surgeon tells me he hath frequently seen this Bird at the Cape where it's called the CARDINAL."

#### Virginia and the Carolinas

In the early reports from the Virginia colony, John Smith (1612), Nathaniel Shrigley (1669), and others simply mentioned "red birds," but the first description of wild birds appeared in John Clayton's section "Of the Birds:"

"Of *Virginia* Nightingale, or red Bird, there are two sorts, the Cocks of both sorts are of a pure Scarlet, the Hens of a Duskish red; I distinguish them into two sorts, for the one has a tufted Cops on the Head, the other is smooth feather'd: I never saw a tufted Cock with a smooth headed Hen, or on the contrary; they generally resorting a Cock and Hen together, and play in a thicket of Thorns or Bryars in the Winter, nigh to which the Boys set their Traps, and so catch them and sell them to the Merchants for about Six Pence a piece; by whom they are brought for *England*; they are something less than a Thrush." (Clayton, 1693: 995)

The bird illustrated by Aldrovandi and later copied by Johnstone and Ray-Willughby likely came from some part of Mexico, even though on occasion it was called "The

Virginian Nightingale.” Because of known shipping trade between Virginia and the Cape of Good Hope, Petiver’s reference to “The Cape” suggests that his bird might have originally come from colonial Virginia. In addition to Clayton’s remarks about cardinals being shipped from Virginia to England in the late 17<sup>th</sup> century, other caged birds were sent abroad in the early years from the Virginia colony (Johnston, 2003).

John Lawson, writing about bird life in North Carolina, simply described Red-Birds but provided no natural history material (Lawson, 1709: 148). John Brickell’s *Natural History of North-Carolina* (1737) contains an engraving of a “Red Bird” which was obviously copied

from the *Ornithology* of Ray-Willughby (Simpson, 1985).

It was the artist-naturalist Mark Catesby who first painted the cardinal in a natural habitat (Fig. 4; a hickory, *Carya alba*, is in the background), probably in Virginia (Catesby, 1731-43). In his accompanying English text, he continued to call it “the red Bird,” and provides a description and some natural history notes. On the same page a French translation (translator unknown) of the same material is headed “Le Cardinal.”

Thus, the common bird that we now identify as Virginia’s State Bird has been through a long period of scanty descriptions and plagiarized illustrations.



Fig. 4. Cardinal perched in a hickory branch, painting by Mark Catesby.

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